

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021315**Date Inspected:** 28-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zho Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder(OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD**WELDING:**

Segment 12BE~ 12CE

This QA Inspector observed ZPMC qualified welding personnel identified as 067752 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBE12A-003; located On Orthotropic Box Girder (OBG) Deck Plate to Deck Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. This QA Inspector observed a welding current of approximately 178 amps and 23.8 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding The Critical Welding Repair Report (CWRR) was B-CWR2813 Rev-1 .This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Wang Li Yang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW-1G (1F) FCM-Repair-1. See attached photo for further details.

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Segment 12BW~ 12CW

This QA Inspector observed ZPMC qualified welding personnel identified as 046709 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3006-011; located On Orthotropic Box Girder (OBG) Bottom Plate to Side Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. This QA Inspector observed a welding current of approximately 164 amps and 24.6 volts and the base material appears to have been preheated by an electrical heating elements prior to welding The Welding Repair Report (WRR) was B-WR19624 . This QA Inspector observed the base material appears to have been being preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhou Peng was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW-4G (4F) FCM-Repair-1. See attached photo for further details.

Segment 12BW~ 12CW

This QA Inspector observed ZPMC qualified welding personnel identified as 040611 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBW12A-001; located On Orthotropic Box Girder (OBG) Deck Plate to Deck Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhong Peng. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding The Critical Welding Repair Report (CWRR) was B-CWR2823. This QA Inspector observed the base material appears to have been being preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhou Peng was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW-4G (4F) FCM-Repair-1.

Segment 12BE~ 12CE

This QA Inspector observed ZPMC qualified welding personnel identified as 047353 perform Flux Cored Arc Welding (FCAW), weld joint identified as OBE12C-001; located On Orthotropic Box Girder (OBG) Deck Plate to Deck Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding The Critical Welding Repair Report (CWRR) was B-CWR2811. This QA Inspector observed the base material appears to have been being preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Wang Li Yang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-FCAW-1G (1F) ESAB-Repair.

Segment 12BW~ 12CW

This QA Inspector observed ZPMC qualified welding personnel identified as 067993 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP3056-001-020; located On Orthotropic Box Girder (OBG) Deck Panel Diaphragm to Stiffener CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. This QA Inspector observed the base material appears to have been preheated by a torch prior to welding. ZPMC Quality Control (QC) Mr. Zhou Peng was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2213-TC-U4b-FCM-1.

Segment 12BE ~ 12CE

This QA Inspector performed Magnetic Particle Testing (MPT) Verification Inspection of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report on this date. The members are identified as Orthotropic Box Girder (OBG) components. The weld

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designations Verified are as follows.

SP3017-001-025, 026

SP3021-001-029, 030

SP3018-001-029, 030

SP3022-001-020, 021

SP3019-001-031, 032

SP3023-001-011, 012

Nondestructive testing (NDT) notification No.08421

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.



Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Prabhune,Manoj

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer